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MEAN WELL

SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

MPS-45 SERIES

Jameco Part Number 221065 (MPS-45-12)

.LOW COST, HIGH RELIABILITY
.105°C OUTPUT CAPACITOR
.INTERNATIONAL AC INPUT RANGE
.HIGH EFFICIENCY, LOW WORKING TEMPERATURE
.SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
.SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED
.COMPACT SIZE, LIGHT WEIGHT
.100% FULL LOAD BURN-IN TEST
.BUILT IN EMI FILTER, LOW RIPPLE NOISE

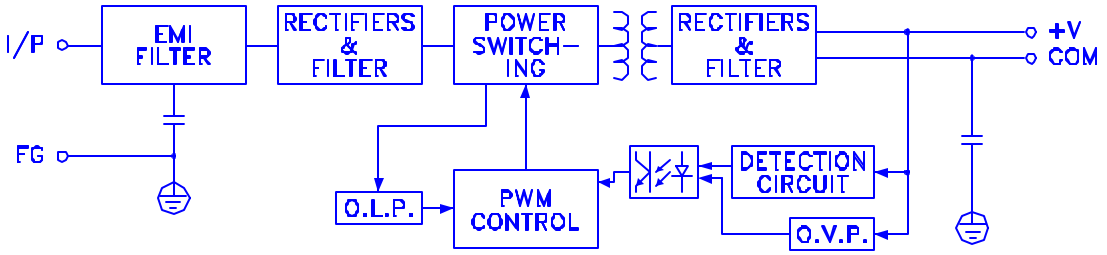
MODEL / SPECIFICATION	MPS-45 -3.3	MPS-45 -5	MPS-45 -7.5	MPS-45 -12	MPS-45 -13.5	MPS-45 -15	MPS-45 -24	MPS-45 -27	MPS-45 -48
DC OUTPUT VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±3%	±3%	±3%	±2%	±2%	±2%	±2%	±2%	±2%
OUTPUT RATED CURRENT	8A	8A	5.4A	3.7A	3.3A	3A	1.9A	1.7A	1A
OUTPUT MIN. CURRENT	0A	0A	0A	0A	0A	0A	0A	0A	0A
OUTPUT MAX. CURRENT	10.7A	10.5A	7A	4.4A	3.9A	3.5A	2.2A	1.95A	1.1A
RIPPLE & NOISE (Vp-p)	80m	100m	100m	100m	100m	100m	100m	100m	100m
LINE REGULATION	±1%	±1%	±1%	±1%	±1%	±1%	±1%	±1%	±1%
LOAD REGULATION	±3%	±3%	±3%	±2%	±2%	±2%	±2%	±2%	±2%
RATED OUTPUT POWER	26.4W	40W	40.5W	44.4W	44.6W	45W	45.6W	45.9W	48W
MAXIMUM OUTPUT POWER	52W (+3.3V:35W) WITH 18 CFM MIN. FORCED AIR CONVECTION								
EFFICIENCY	65%	72%	75%	76%	76%	77%	78%	78%	78%
DC VOLTAGE ADJ.	±10%								
INPUT VOLTAGE RANGE	90~264VAC 47~440Hz ; 127~370VDC								
AC CURRENT	1.2A/115V 0.7A/230V								
INRUSH CURRENT	COLD START 20A/115V 40A/230V								
LEAKAGE CURRENT	<0.3mA/264VAC								
OVERLOAD PROTECTION	53~75W (3.3V:36~55W) TYPE:PULSING HICCUP SHUTDOWN RESET:AUTO RECOVERY								
OVER VOLTAGE PROTECTION	115%~135%								
TEMP. COEFFICIENT	±0.04% / °C (0~50°C)								
SETUP, RISE, HOLD UP TIME	800ms, 30ms, 20ms/230VAC 1.2s, 30ms, 12ms/115VAC								
VIBRATION	10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES								
WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC								
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:500VDC / 100M Ohms								
WORKING TEMP., HUMIDITY	-10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH								
STORAGE TEMP., HUMIDITY	-20°C~+85°C, 10%~95% RH								
DIMENSION	127*76.2*30mm (L*W*H) PCB ONLY								
WEIGHT	0.23Kgs								
SAFETY STANDARDS	UL2601-1, EN60601-1 APPROVED								
EMC STANDARDS	CISPR11 (EN55011), IEC61000-4-2,3,4,5,6,8,11 IEC61000-3-2,3 EN60601-1-2 VERIFICATION								

NOTE :
1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
2.TOLERANCE GINCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
5.MOUNTING HOLES M1 AND M2 SHOULD BE GROUNDED FOR EMI PURPOSES.

2002-03-21

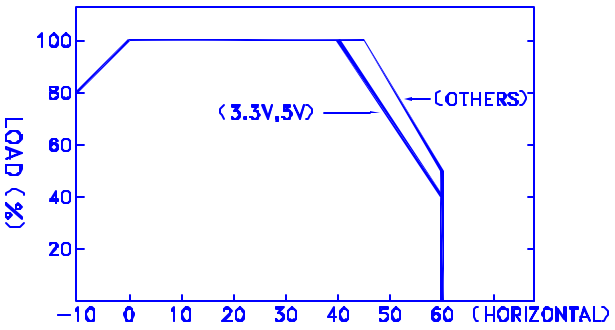
MPS-45 SERIES

BLOCK DIAGRAM

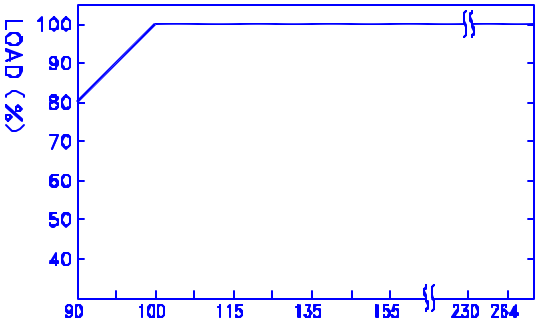


fosc : 45KHz

OUTPUT DERATING



STATIC CHARACTERISTICS



DIMENSION (mm)

- TERMINAL PIN NO. ASSIGNMENT
  - CN1 : MOLEX 5277-02
    PIN 1,2 : AC INPUT
  - CN2 : MOLEX 5273-06
    PIN 1,2,3 : DC OUTPUT +V
    PIN 4,5,6 : DC OUTPUT GND
- MATING CONNECTORS
  - CN1,2 MATING CONNECTOR TYPE MOLEX 5195 AND 5239 SERIES OR EQUIVALENT WITH MOLEX 5194 AND 5225 OR EQUIVALENT CRIMP TERMINALS.